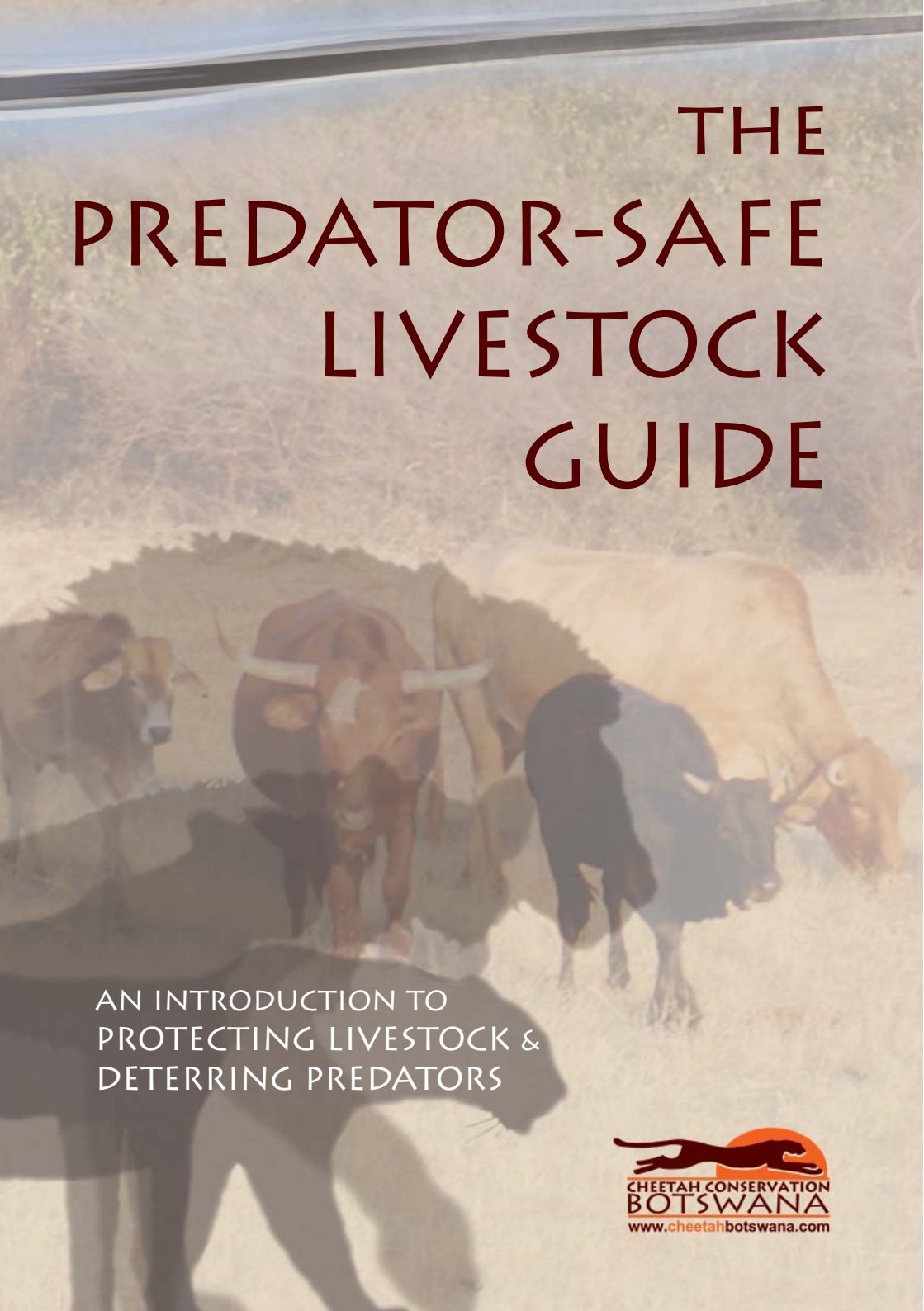
THE PREDATOR-SAFE LIVESTOCK GUIDE



AN INTRODUCTION TO
PROTECTING LIVESTOCK &
DETERRING PREDATORS

CHEETAH CONSERVATION BOTSWANA
www.cheetahbotswana.com

AN UNHAPPY FARM

When livestock and game are poorly managed, all can feel the effects.

THE PREDATOR-SAFE LIVESTOCK GUIDE

AN INTRODUCTION TO PROTECTING LIVESTOCK & DETERRING PREDATORS

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INTRODUCTION

Conflict Between Farmers & Predators

Conflict between humans and wildlife dates back to the time when mankind lived a simple, hunter-gatherer existence and from the point when people first began domesticating animals, farming livestock and growing crops.

Unlike wild game, domestic animals such as sheep, goats and cattle are slow and less alert. This can make them easy prey for opportunistic or scavenging predators and if it becomes too easy, some predators can turn into habitual livestock killers. Livestock therefore needs to be protected and well managed.

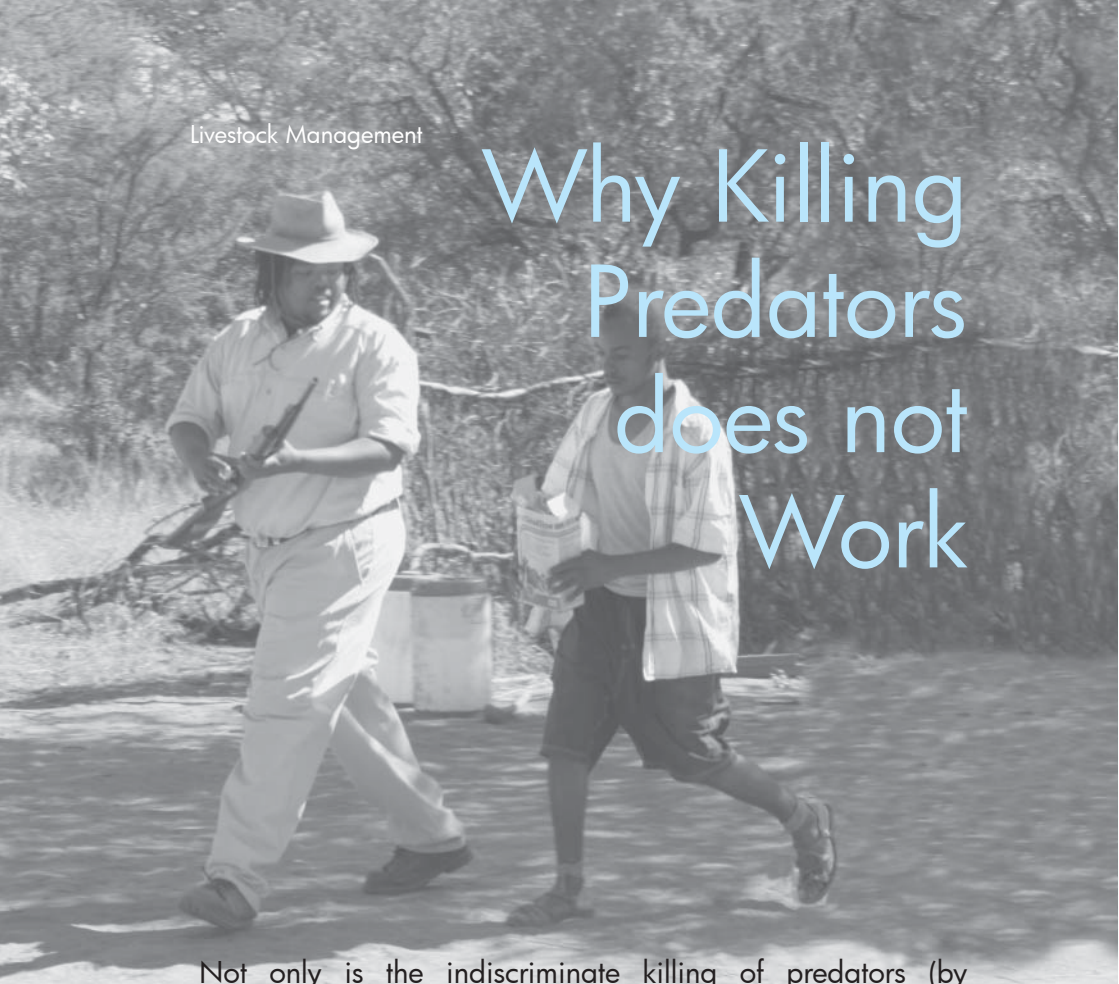
Why have Livestock Management Plans?

Livestock management can greatly reduce losses to predators. At the same time, farmers can improve livestock health and quality, thereby increasing value and profits.

This guide contains important information about some of the best methods available to deter predators and protect livestock, as well as details about how to identify each type of predator. By making it difficult for predators in the area to take livestock and by becoming good managers, farmers can reduce livestock losses, save time and money, and enjoy greater success.

If you are experiencing difficulties with predators on your farm, then this Guide can help. More detailed information about livestock management solutions is available from Cheetah Conservation Botswana. We will be happy to assist you and consultations are free of charge.

Why Killing Predators does not Work



Not only is the indiscriminate killing of predators (by shooting, trapping or poisoning) a threat to endangered species and the environment, it is only a very short term remedy for the farmer - rather than a long-term cure. The removal of predators simply creates an empty territory for others (possibly problem predators) to move into, prolonging the costly cycle of predator/livestock conflict. The gradual loss of predators can result in disruption to entire natural processes. Wild game population expansions can lead to greater competition for limited grazing and higher instances of spreading disease. Poisons can also contaminate soil and ground water. This wholesale deterioration of land, eventually no longer able to support crops nor livestock, can be avoided.

Deterring Predators, Protecting Livestock

A good livestock management plan includes the adoption of non-lethal control methods which can make it difficult for predators to approach and take livestock in the first place.

Predators are opportunistic - if they see a chance of an easy meal they will take it. The keys to achieving long-term success in reducing livestock losses are in gaining a greater understanding of the habits of predators. This knowledge can then inform the type of non-lethal methods available to work against them, to the greater advantage of farmers and their livestock. This booklet introduces basic ways of tipping the balance in your favour.

Basic information about the most successful but also cost-effective management methods available, together with basic information about the behaviour of predators common to Botswana, is all contained in the six sections of this booklet.

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Use this section to quickly find the information you need in this book.

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1 Kraals

Kraals play a vital role in protecting livestock. There are several designs in use and they can be constructed in various ways, depending on the type of livestock to be protected and the type of predator in the area. When constructed properly, they keep predators out and are most effective when located close to human habitation. Close-to-home monitoring of livestock and human activity in the area will also deter predators from taking the risk of approaching.

Maternity & Calving Kraals

These enclosures are used for breeding herds, cows that are about to give birth and also for those with small calves. Keeping them together in a safe area protects the calves during the most vulnerable first 3 months of their lives. Keeping them close to human habitation also allows for careful monitoring, reducing opportunity to predators as well as reducing the chance of livestock sickness or birth delivery problems going unnoticed.

When using maternity kraals it is important to:

- try to match the calving seasons with those of the resident wildlife (predators will then prey upon the plentiful supply of young wildlife instead of the calves);
- locate kraals away from areas where predators have been frequently sighted;
- clear bushes around the kraal to reduce the cover available for predators to use;
- use a visual barrier around the kraal to prevent predators from seeing the animals inside, and;
- make sure no large trees or branches extend over the kraal from the outside, from which predators could gain entry.

Mobile Kraals

Mobile kraals can help to protect livestock at night, when most predators are active. The kraals are easily moved, so the farmer does not need to return livestock to the same spot every night. By maintaining the ability to move the herd around, predators become less able to predict where livestock will be and more grazing will also be available.

A mobile kraal can be made by using;

- mats (made from young pliable branches to form a visual barrier);
- by sharpening the branches of the mats at the top and bottom (to stop predators from crawling underneath or climbing over the top), and;
- supporting poles to hold the mats upright.

Thorn Branch Kraal

One of the most common types of kraal barrier in use in Botswana, it is most successful when constructed with the acacia trunks facing *into* the kraal. It can be used to help protect cattle, goats or sheep.

Wicker Kraal

This kraal is constructed by arranging rough poles in a circle. Branches or small shrubs are interwoven between the poles to form a thick barrier. The height of the resulting barrier should be around 2 metres and its thickness will vary between 30-35 centimetres.

The effectiveness of the wicker kraal can be increased by laying thorn branches along the top. This type of kraal can be used for small stock and is also not easily broken by cattle, or easily entered by predators.

Cloth Screen Kraal

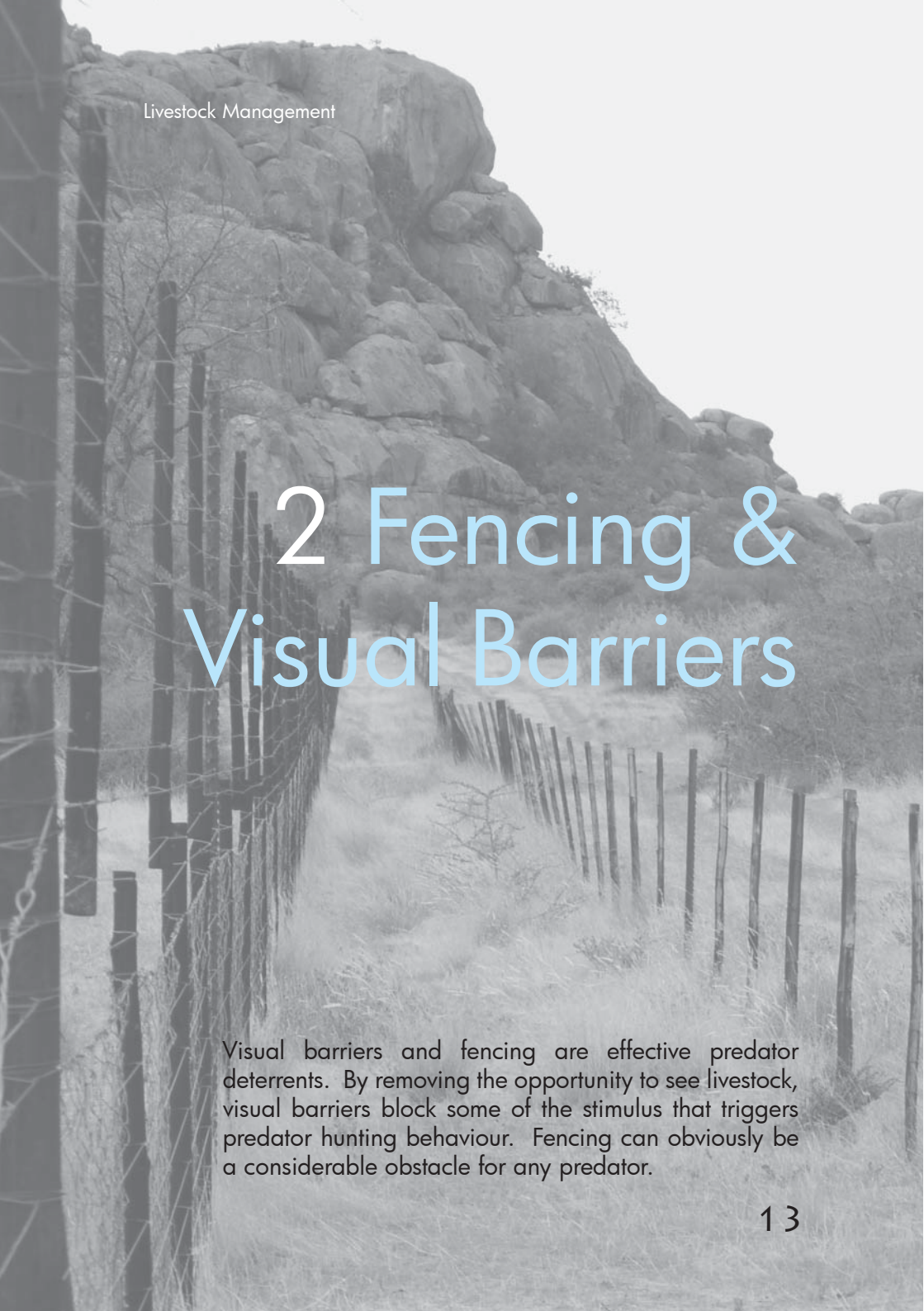
Made with wire fencing and either cloth, shade netting or Hessian attached to the outside of the wire, this type of kraal is recommended for housing goats or sheep. The fabric forms a visual barrier, preventing predators from seeing animals inside the kraal.

'Lion Proof' Kraal

This is a permanent, stampede-proof kraal for cattle. It is a construction formed of 2.7 metre high wooden walls with three strands of barbed wire, angled outwards, along the top. A house outside should also be provided for herdsmen.

Stone Kraal

The walls of this type of kraal are constructed with flat stones or rocks. Built correctly, it is strong and stampede-proof and very effective for cattle. Stone kraals can also be improved by laying thorn branches around the top of the walls.



2 Fencing & Visual Barriers

Visual barriers and fencing are effective predator deterrents. By removing the opportunity to see livestock, visual barriers block some of the stimulus that triggers predator hunting behaviour. Fencing can obviously be a considerable obstacle for any predator.

Wire Fencing

Though they can be costly to install and maintain, wire, mesh, chain-link or electric fencing can be good at deterring predators. Should a farmer wish to invest in this method, the fence should be at least 2 metres high in order for it to become an effective barrier.

If a predator-proof mesh wire fence line is to be installed, take into account that:

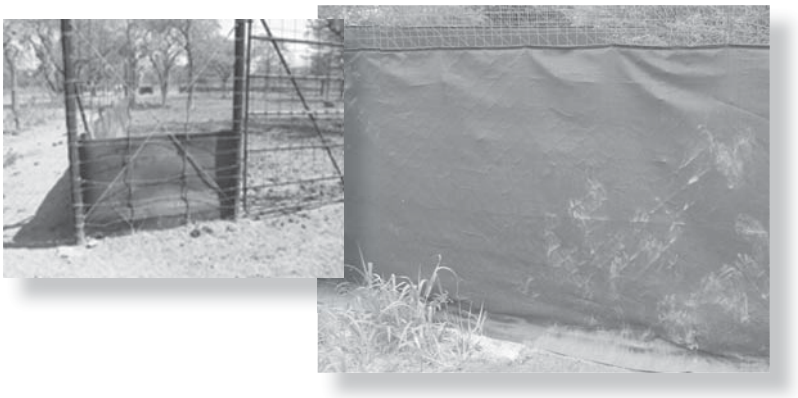
- the horizontal wire strand spacing should be less than 15cm;
- the vertical wire strand spacing should be every 7 - 8cm;
- the fence should be electrified and barbed at the top and bottom (to deter predators from trying to climb over the fence or dig under it), and;
- 'swing gates' can be installed as an alternative to fence electrification, to allow digging animals access but not predators (see page 16), but remember that without electrification, the overall 'predator-proof' capability of the fence will be degraded.

Visual Barriers

Visual barriers are very effective at deterring predators from approaching kraals. The barrier removes some of the stimulus that can trigger hunting instincts in predators.

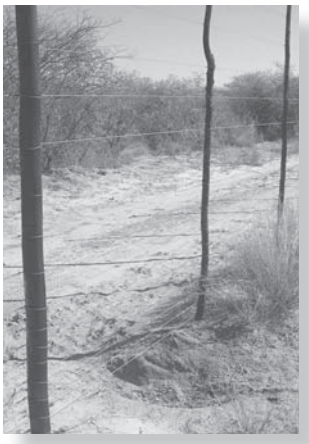
A visual barrier can be installed by:

- covering the bottom 1 metre of the kraal with shade cloth, plastic sheeting or conveyor belting (which predators cannot see through);
- ensuring that the sheeting is securely fastened to the kraal and that there is no gap between the sheeting and the ground, and;
- making sure no large trees or branches extend over the kraal (from which predators can see into the kraal and gain entry).



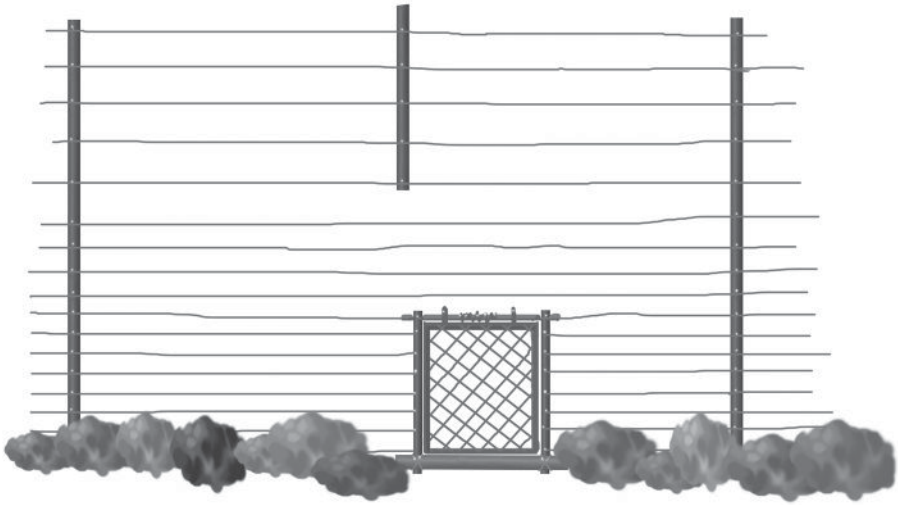
Swing Gates

Swing gates can be used as a much cheaper alternative to electric fences. The object of the gates is to reduce the number of holes being dug under fence lines, through which predators can gain access to farms. Hinged at the top, they allow access for digging animals such as warthogs, porcupines and aardvarks, but deny access to predators, which are unable to recognize the gates.



The gates can be installed along a fence line at suitable intervals. The number of gates needed will vary from property-to-property. Research has shown that when correctly sited, swing gates can help to reduce the number of holes under a fence line, through which livestock or game can escape and predators such as leopards and cheetahs can also gain entry.

These simple gates have been shown to reduce the digging habits of warthogs - which over a relatively short period of time can instead get used to the gates.



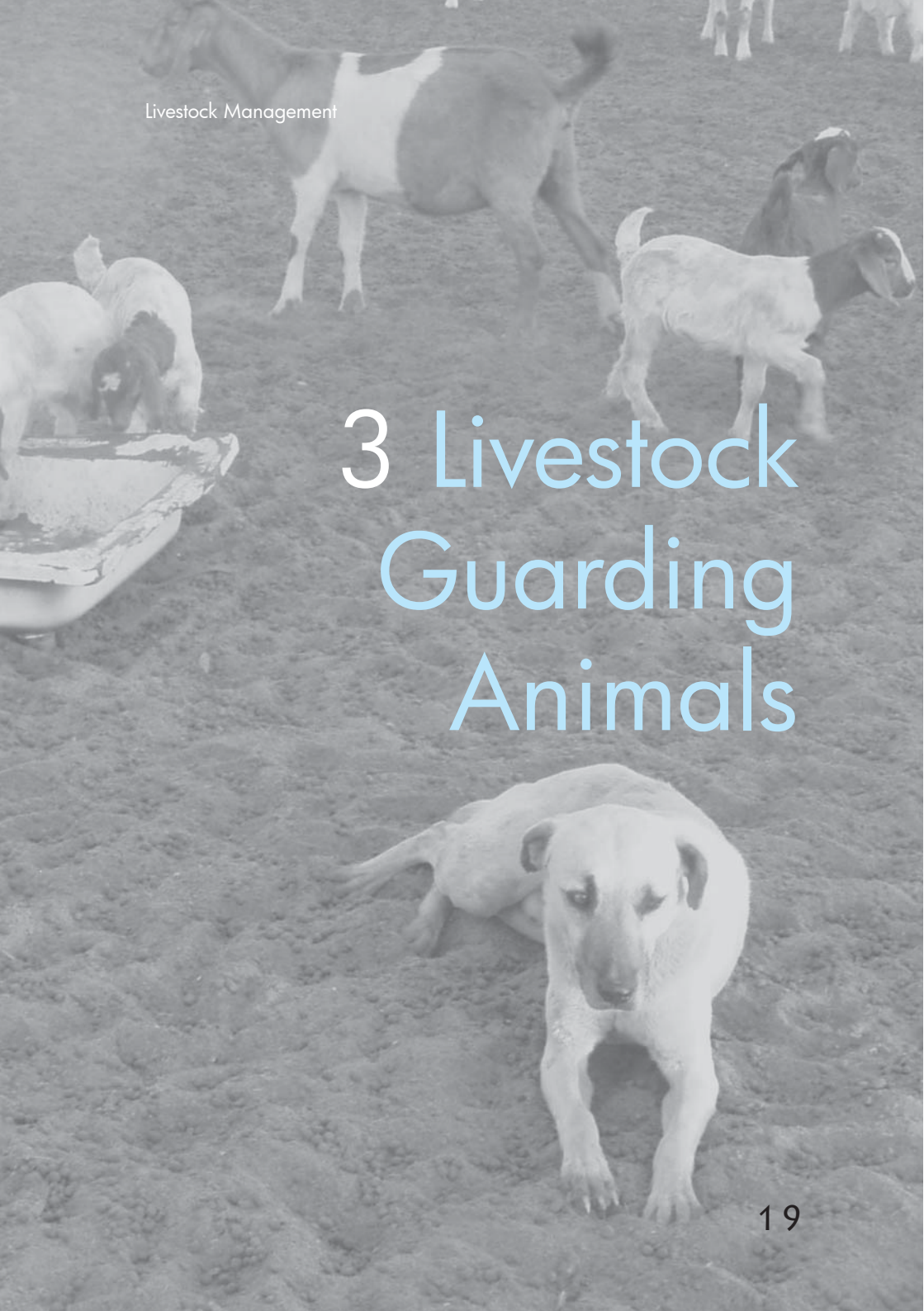
Gates are quite easily made, even from scrap metal and wire off-cuts. Important points to consider are:

- that the gates are installed on existing routes already being used by digging animals;
- existing holes should be closed using rocks and thorn bushes;
- the entrance to the gate on either side of the fence should appear to be the only way through, by placing rocks and other natural obstacles either side of the gate;
- care should be taken to ensure digging animals do not dig under the gate by using large rocks and a wooden dropper, securely attached to the bottom of the gate frame, and;
- maintenance checks should be conducted regularly after installation, to ensure that gates are working and new holes are not appearing.

Swing gates that are properly sited and installed can be a cost-effective method for reducing the appearance of holes under a fence line.

The most important thing to consider is that, while early research has shown strong potential for swing gates, their introduction and use should form *part* of a predator defence effort within a wider management plan. These should always feature a variety of cost-effective predator protection and deterrent measures, all working together.

CCB welcomes the opportunity to work with farmers who may be installing swing gates in their fence lines, towards further development of their wider use.



3 Livestock Guarding Animals

Guarding Dogs

LIVESTOCK GUARD DOG PROGRAMME

Though not a cure-all for predator problems, guarding dogs are a good first line of defence in many types of farm operations, as a supplement to other methods of non-lethal predator control.

The proper introduction of a puppy into a goat or sheep farm is critical to success. This takes time and patience, but the results can be worth waiting for! Before investing in a puppy, livestock producers should consider the following information and investigate the concept fully. It is possible for guard dogs to kill livestock in a flock they are supposed to be guarding if not properly trained. Farmers must also consider other dogs on the premises. Will a guard dog see your herding or pet dog as a threat? Sometimes, a guard dog must also be taken away from livestock to allow herding dogs to work the herd.

Guard dogs protect a herd by patrolling, barking, scent-marking and will even pursue a predator that might be close by.

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A suitable dog may be a specific guard dog breed, but mixed or local cross-breeds can be just as successful. A puppy born of a proven sire or dam and raised amongst the livestock herd will probably develop into a good guard dog, if properly bonded with the herd at the correct time. It is important to remember that:

- a guard dog should grow to be stocky and weigh between 20-30kg;
- from the age of 4 weeks dogs begin to imprint on their surroundings, so the critical time to introduce and begin to raise a puppy with the herd is between 5 and 8 weeks;
- a puppy must be raised with both goats AND sheep, if it is to be expected to protect both types of livestock;
- choose a puppy from a family line that exhibits good traits and check the health of the parent dogs;
- avoid over shy or aggressive puppies and consider neutering to prevent future problems during the heat cycles in females or by males wandering to seek females (neutering of males or females does not reduce their guarding capability).

LIVESTOCK GUARD DOG PROGRAMME

A Livestock Guarding Dog should always be treated as a working dog and not a pet. When introducing it, remember that:

- it should be placed with young livestock - to avoid injury from older or aggressive animals - and older animals should be introduced gradually;
- the puppy will need a shelter and it must be fed inside the kraal when the livestock are fed;
- the puppy must not play with or chase the livestock, so behaviour including biting the livestock, rough handling and over-aggression should be corrected with stern discipline (as well as praise for good behaviour):
- a run-wire can be used to limit the movements of a playful puppy while allowing livestock to keep away, and;
- larger breeds mature more slowly and puppy behaviour can last up to 24 months of age in some dogs. Patience and discipline are required with all puppies.

A certain amount of licking, pawing, chasing and nipping of livestock can be expected with some puppies. Closely supervise new puppies, to stop them forming of bad habits. Playfulness will decrease with age.

LIVESTOCK GUARD DOG PROGRAMME

New puppies need to be monitored to make sure they develop correct guarding behaviour. It is important to make sure that:

- failure to stay with the livestock is corrected and the puppy must be stopped from coming to the house by immediately returning it to the livestock;
- chaining the dog with the livestock at night and releasing it during the day may achieve good results;
- a new puppy should be introduced to its boundaries on a lead and several times in the first weeks, and;
- patrolling and attentiveness to livestock begins to increase with time (in a small percentage of puppies, regardless of training, a strong bond with livestock does not develop).

Though guard dogs should never be treated as pets it is important that they can be handled. They will need weekly dipping, yearly vaccinations and possibly other health treatment if sick or injured.

LIVESTOCK GUARD DOG PROGRAMME

Livestock Acceptance

The time needed for livestock to accept the new dog will vary. It can take several days to a few weeks for a herd to accept a new puppy. Ewes will be very protective of new-born or young lambs at lambing time. Livestock accustomed to a guard dog are easily moved by herding dogs, but the guard dog may need to be chained or moved away from the herd while being moved.

Care of a Gaurd Dog

Patience and discipline are needed to get a guard dog to bond with a herd of livestock and to accept responsibility for guarding it. Guard dogs are valuable animals, so they must be protected from accidents by moving vehicles or from being shot or trapped as a result of being mistaken for an intruder, by neighbours. Tell your neighbours you have a guard dog.

Dogs can become ill, the same as any livestock, so be aware of loss of appetite, diarrhoea or changes in behaviour. It is worth consulting a veterinarian to get proper immunization and de-worming for your guard dog.

CCB operates a Livestock Guarding Dog Programme. Farmers can receive help and advice, a twice-yearly newsletter and are also able to enter an annual competition, to find the Best Livestock Guard Dog in Botswana.

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Guarding Donkeys

Donkeys have seen increasing use in recent years to deter predators from approaching cattle and small stock. Donkeys possess a naturally aggressive temperament towards predators and are not afraid of intimidating them.

In Botswana, donkeys have a relatively low cost value and fit in with other predator control methods as part of a good farm management plan. This makes them a potentially popular measure to protect livestock. Under proper conditions, guarding donkeys can provide a high level of around-the-clock protection for goats and for cattle calves.

As with guard dogs, the proper introduction of donkeys into a cattle or small stock farm is critical to success and producers should first consider the following information and investigate the concept fully.

In the presence of a predator, donkeys will bray, bare their teeth, chase and even attempt to bite and kick an intruder. A number of livestock owners have discovered that they can be very effective in deterring predators from approaching.

The most suitable donkeys are usually jennies (females). These are often easier to work with and have demonstrated that they are gentler with livestock and more aggressive towards dogs. Castrated jacks (geldings) would only be a second choice. Before purchasing a potential guard donkey, it is important to make sure that:

- the animal is of good build and has the right temperament. Its level of aggressiveness can be checked by introducing a dog into a small pen containing the donkey. If the donkey shows little or no aggression towards the dog, it is not likely to make a good guard animal;
- intact jacks are avoided, as these are often more aggressive towards other livestock;
- a period of about 4 - 6 weeks is allowed for the donkey to form a bond with the livestock it will be protecting. If the donkey is a weanling, there is a high likelihood that the animal will bond successfully;
- a jenny should foal at the same time that the livestock are calving, as she will be more protective at this time, and;
- only one jenny or gelded jack is introduced into a pasture used by livestock no larger than around 40 hectares. It will be difficult for one donkey to patrol a larger pasture, but two or more donkeys might prefer to stay together, instead of being with the livestock.

While there are no guarantees as to which particular donkey will be the best, the odds will be improved by selecting an animal that has been trained to associate with livestock.

Once introduced and a livestock herd gets used to the presence of the donkey, they will begin to gravitate towards it and seek its protection when nervous or frightened. It should be remembered that:

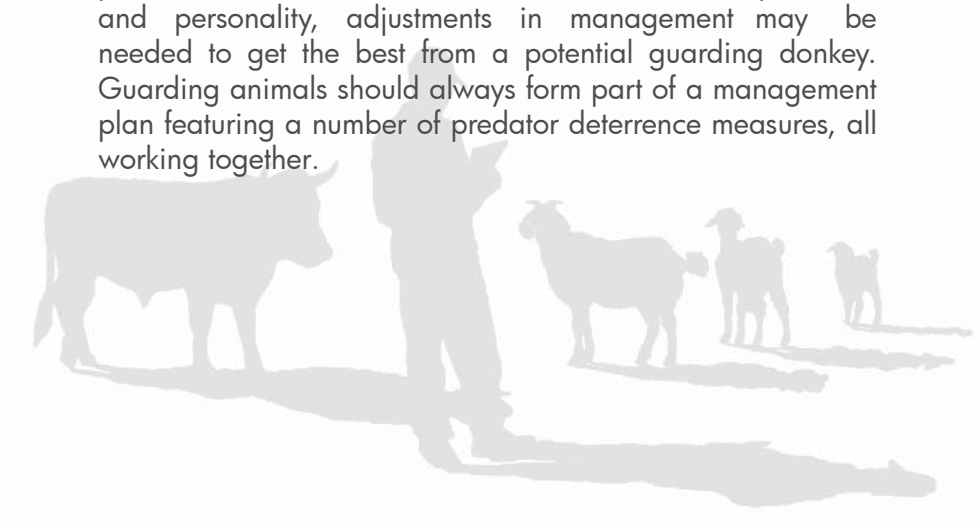
- solid boundary fences and enclosures are important, to avoid circumstances where a donkey attempts to tear down a weak fence in order to get to nearby horses or other donkeys;
- donkeys can become conditioned to feel part of the herd by being fed at the same time and will realize that it will not miss out on food if it stays with the herd;
- feeding guarding donkeys near barns, buildings or other kraals that are not used by the herd should be avoided, to keep the animal with the livestock.

Maintaining a Guarding Donkey

Besides often being cheaper to obtain than a guard dog, lower maintenance can also be an advantage with a donkey. They require little training, other than halter breaking to improve ease of handling, and are also less prone to accidental or premature death. Donkeys are hardy and can live for between 15 and 25 years. Points to consider in looking after a guarding donkey include:

- water should be readily available;
- annual de-worming and occasional supplementary feeding during periods of poor range conditions;
- a donkey can benefit from occasional veterinary care, hoof trimming and filing of teeth from time-to-time.

Guarding donkeys can be very effective in deterring predators. Because of individual differences in temperament and personality, adjustments in management may be needed to get the best from a potential guarding donkey. Guarding animals should always form part of a management plan featuring a number of predator deterrence measures, all working together.



4 Animal & Range Management

Other important management practices that can be used to help reduce livestock losses to predators. These include:

Controlled Breeding

The breeding of livestock should be matched to the seasons of the local wild game population wherever possible. This not only ensures that there is plenty of natural prey for predators to hunt while livestock are rearing new offspring, but it also allows for much better monitoring of the livestock and prevention of potential losses due to birthing problems. Livestock which is also kraaled has added protection against attack from predators, at a vulnerable time.

Game Population

Helping to maintain a healthy game population on land also used by livestock will provide natural prey for predators. As long as a livestock herd is properly monitored and sufficiently protected in areas where there is wild game, predators will usually avoid approaching livestock.

Herding

Good herders play an important role in managing livestock. Predators will always avoid people if at all possible and studies have shown that the main deterrent in avoiding attacks on livestock by predators, is human presence.

Herding has become an uncommon practice in Botswana. Traditionally, children were often responsible for herding livestock but with the requirement of all children to attend school, they have not been replaced in their traditonal role. Today, farm workers do not often go out with livestock and

the result has been greater exposure of livestock to predators. The pastoral herding techniques of the Masaii in Kenya have, for example, continued to enable them to live in the wilderness with their livestock and minimal conflict with predators. Herding is, therefore, a valuable tool for livestock farmers.

Farmers can get the most out of using herders by;

- first, situating kraals near the homestead where there are people and noise;
- making sure that when herders move livestock out of the kraal, they do so an hour before sun-rise (the hours after sun-rise see increased activity by some predators) and by making some noise such as shouting or singing to deter predators;
- making sure that herders stay with livestock (though it can usually be left unattended between mid-day and 3 pm) before returning it to the kraal again before dark, and;
- providing incentives to herders whose efforts result in high levels of livestock protection and no losses to predators, on a monthly and annual time scale*.

**As part of an incentive scheme, a competition to find the 'Best Herder' was previously held in Kweneng. The prize for the winner, who had the fewest losses, was a calf. During the competition, herder attentiveness to livestock widely increased and at the same time, overall losses to predators in the area decreased. After the competition and an incentive was gone, losses increased once again.*

Disease Prevention & Management

The ability to identify livestock diseases is important to farmers, in order to prevent occurrences or to treat symptoms. Early detection is key, as sick animals will not only attract and become easy prey for predators, but they can also decrease productivity of the herd and possibly infect others.

Livestock farmers should find out where the nearest support of a veterinarian and government Animal Health' extension agents is to be found, in case their help is needed. Prevention is always better than cure and usually more cost-effective, so these people will assist with vaccinations, the removal of parasites or treatments for diseases which could all result in livestock losses or de-value the herd.

Parasites

All livestock will be affected by or live with internal and external parasites, to some degree. Generally, the stronger and more healthy livestock then the greater their immunity to diseases transmitted by parasites will be. Control of parasites is therefore important, to maintain a balance and to prevent parasites from feeding off livestock, weakening their resistance to disease and so affecting their weight and productivity of the herd.

Common internal parasites (or endoparasites) include tapeworms, flukes, roundworms, coccidia and abomasal worms which cause heamonchosis.

Regular de-worming is important for controlling internal parasites, especially during times of stress, to maintain good livestock productivity.

Common external parasites (or ectoparasites) include ticks, lice, mange and flies. These can carry diseases, such as redwater (babesiosis), heartwater or anaplasmosis, which can all be serious if left untreated.

Regular dipping is important for control and the prevention of ticks. Always use dips in accordance with the instructions on the container.

Care should always be taken, as some dips are toxic to other animals such as birds. The lists on Page 50 of this book will help identify the types of livestock dip which are harmful to birds.

Vaccination to Prevent Disease

Todays vaccines are very effective in disease prevention. Farmers can sometimes be put-off from protecting their livestock, by vaccination costs. Vaccines are relatively inexpensive and when weighing these costs against those of losing individual animals or several members of the herd to disease, then vaccination becomes a cheaper option.

A local veterinarian or official from the Department of Animal Health & Production can advise on vaccinating a herd. The Department' also provide vaccinations, free of charge, against anthrax, clostridium and contagious abortion, as well as botulism during drought. The Department require vaccination against foot & mouth disease in affected areas and also provide this service.

Other diseases can also be vaccinated against and the most cost-effective way to do this is to ask a local veterinarian to assess the herd and advise on a preventative health plan, as well as a nutritional programme.

If you are storing vaccines remember that they must be kept cold, especially during transport and handling. This can be done by wrapping them in an ice pack and newspaper, or in a cooler box with ice packs.

Most vaccines are destroyed by both freezing and by heat, particularly the brucelosis vaccine which is sensitive to heat.

Livestock can also become sick by eating poisonous plants. Examples include *Dichapetalum cymosum*, *Pavetta harbirii* and *Urginea sanguinea*. They occur in areas with deep, sandy soil and where forage production is very low. Livestock tend to eat these during early summer, as they produce green leaves before most edible plants.

Range Management

One of the challenges facing livestock farmers in Botswana is the health and preservation of their grazing lands. A healthy, grass rangeland needs to be capable of supporting both wild game and domestic livestock to maintain a sustainable farming operation. Most predators prefer wild game rather than domestic livestock, and so farms with higher game populations are usually less likely to experience problems.

When the rangeland condition declines it is also less able to support the prey species of predators, leading to increased livestock predation. The numbers of domestic livestock in Botswana have drastically increased since the 1970's, placing much greater pressure on farm ranges. Continuous, year-round use of available grazing by more livestock has had a significant impact upon rangeland health across the nation.

The above picture shows the difference between range-managed (on the left) and unmanaged land.

Poor veld management, over grazing and bush encroachment have, in turn, gradually affected livestock condition, resulting in lower calving and survival rates, followed by lower livestock values. Range management strategies now, therefore, play an important role in a farm management plan.

Range management techniques for a fenced ranch include:

- 'resting' grazing areas, by dividing the land into fenced grazing rotation areas and moving livestock between camps to allow grazing areas to recover and regenerate, and;
- creating larger herds of cattle, which predators tend to avoid, and rotate them through the grazing areas on a quicker schedule.

On an unfenced cattle post or communal livestock farm, a different range management plan may be considered. This will include systems for:

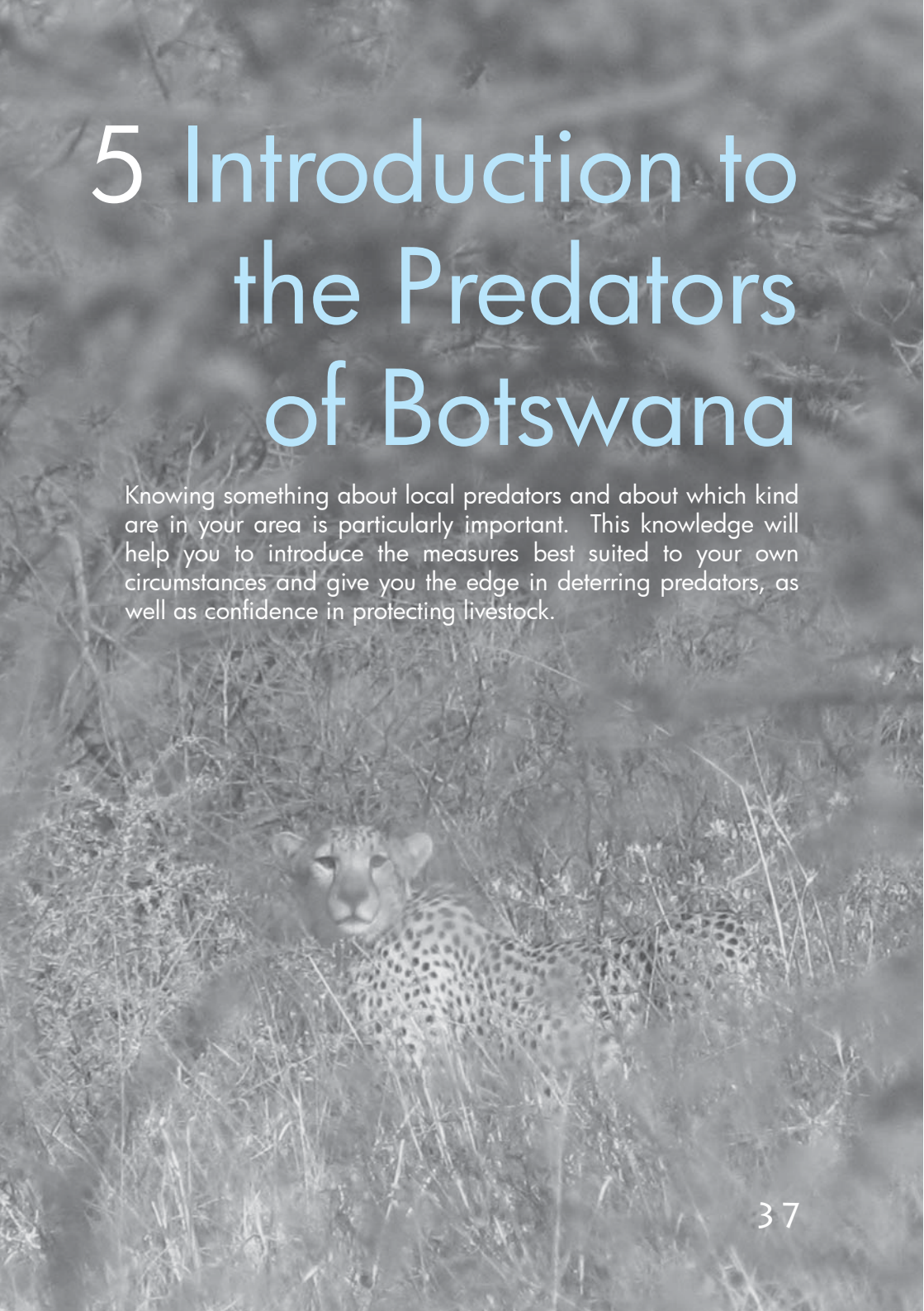
- bore hole rotation, as part of a syndicate with neighbouring farmers;
- grazing rotation, by moving livestock through different areas of the veld to reduce pressure on range lands during drought, and;
- de-stocking and supplementary feeding during the dry season.

Record Keeping

Records are an important part of a well managed farm. Births, livestock numbers, grazing cycles, illness, predator sightings and livestock deaths (as well as the reason for deaths) should all be monitored and properly recorded. Records should also be maintained for vaccinations, de-worming and dipping of livestock.

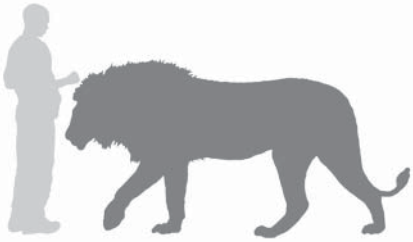
5 Introduction to the Predators of Botswana

Knowing something about local predators and about which kind are in your area is particularly important. This knowledge will help you to introduce the measures best suited to your own circumstances and give you the edge in deterring predators, as well as confidence in protecting livestock.

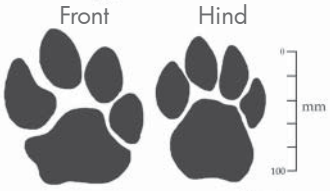


LION

TAU



Southern Africa Distribution



BEHAVIOUR & CAPABILITIES

Social, living in prides of up to 16 individuals

Territorial

Males larger than females

Females do most of the hunting

Groups are capable of bringing down buffalo-sized prey

Individual lions are capable of bringing down wildebeest-sized prey

Most Active

LEOPARD NKWE/LENGAU

BEHAVIOUR & CAPABILITIES

Solitary

Territorial

Males larger than females

Stocky, muscular and a stealthy ambush hunter

Favours trees and is an excellent climber

Capable of bringing down wildebeest-sized prey

Southern Africa Distribution

Front Hind

Most Active

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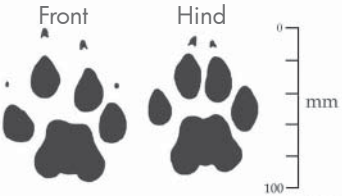
www.cheetahbotswana.com

CHEETAH LETOTSE/LENGAU

Southern Africa Distribution



BEHAVIOUR & CAPABILITIES

Females are solitary, male siblings stay together

Can range over large distances

Males slightly larger than females

Poor climbers

Favour open bush veld

Capable of high speeds to chase down medium-sized antelopes

Most Active

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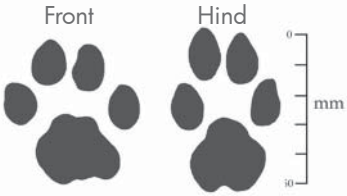
CARACAL

THWANE

Southern Africa Distribution



BEHAVIOUR & CAPABILITIES

Solitary

Territorial

Males larger than females

Very shy and not often seen

Excellent climber and jumper

Capable of bringing down steenbok-sized prey

Most Active

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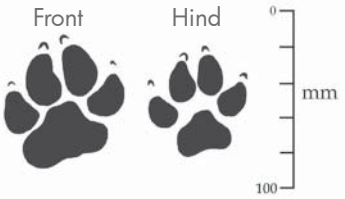
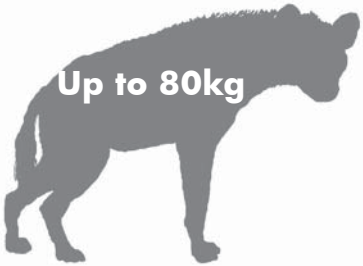
SPOTTED HYENA
PHIRI YO MORAMAGA

Southern Africa Distribution





BEHAVIOUR & CAPABILITIES

Social, living in large packs or 'clans'

Females larger than males

Very intelligent hunter and scavenger

Stocky build, with very powerful jaws for crushing bones

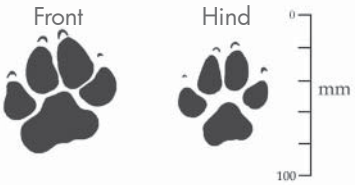
Clans are capable of bringing down zebra-sized prey

Most Active

CHEETAH CONSERVATION BOTSWANA
www.cheetahbotswana.com

PHIRI YO MOROKWA
BROWN HYENA

Southern Africa Distribution



BEHAVIOUR & CAPABILITIES

Mostly solitary, but males can sometimes form small 'clans'

Territorial

Males larger than females

Less powerful than spotted hyenas, with a coat of long hair

Scavenger by nature, but can sometimes hunt small antelope-sized prey

Most Active

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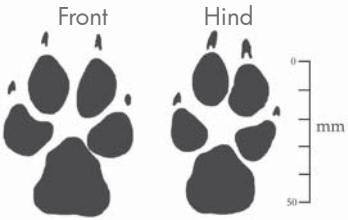
AFRICAN WILD DOG
LEKANYANE/LETLHALERWA

Southern Africa Distribution



BEHAVIOUR & CAPABILITIES

Social, living in large packs of 20-25 individuals or more

Can range over large distances

Males larger than females

Long legs and large ears

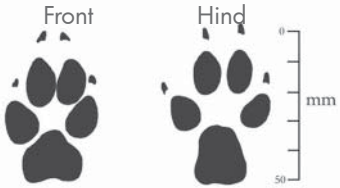
Capable of chasing prey over long distances

Packs are capable of bringing down kudu-sized prey

Most Active

BLACK-BACKED JACKAL PHOKOJE

Southern Africa Distribution



BEHAVIOUR & CAPABILITIES

Social, living as mated pairs but sometimes form a pack

Can be territorial

Males larger than females

Large pointed ears and bushy tail

Hunter and scavenger

Capable of bringing down small antelope-sized prey

Most Active

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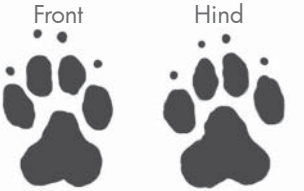
DOMESTIC DOG

NTSA

Southern Africa Distribution



BEHAVIOUR & CAPABILITIES

Social, and feral dogs can sometimes form packs

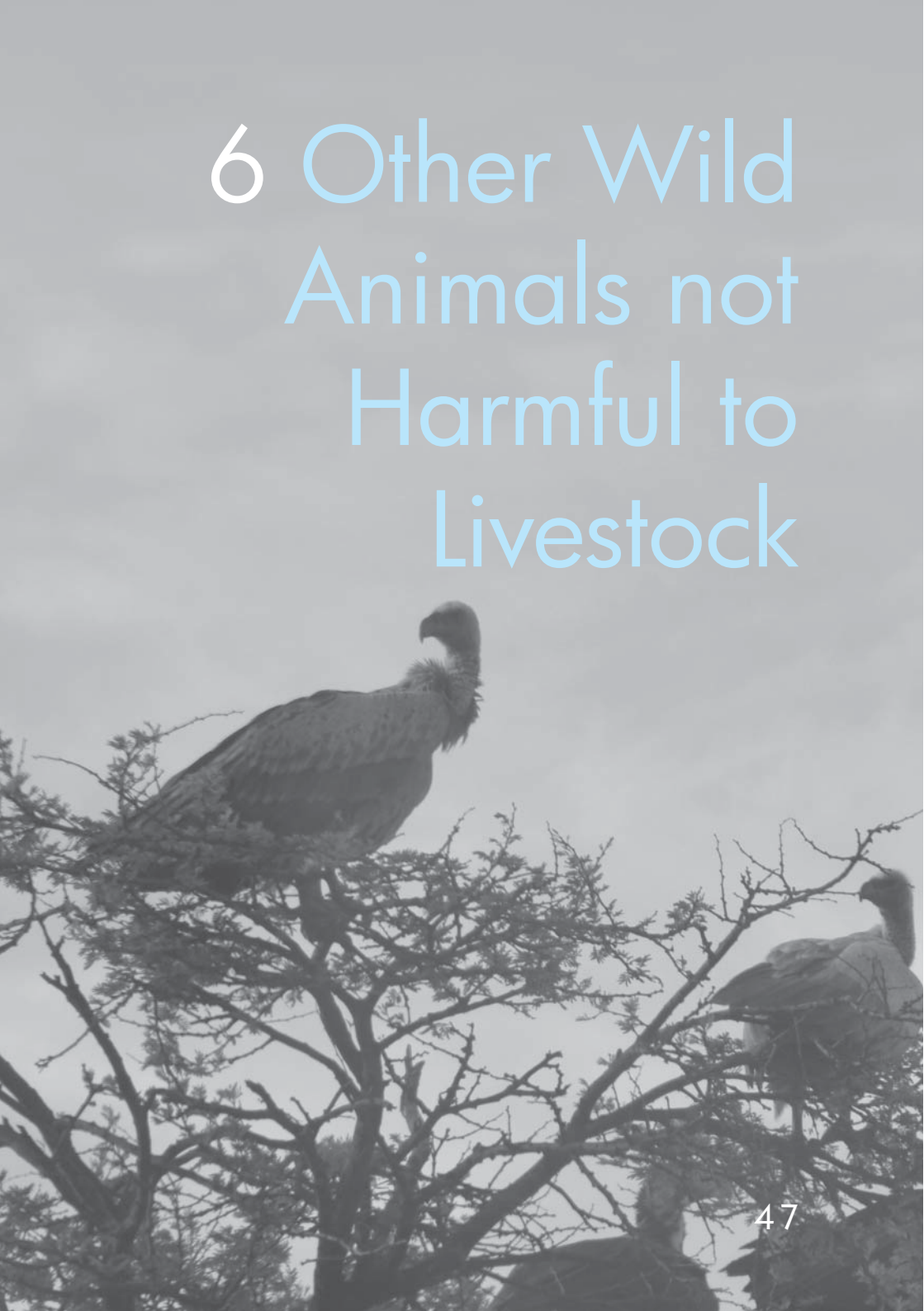
Territorial

Multiple sizes, breeds and cross-breeds

Feral dogs which form a pack are capable of bringing down domestic livestock

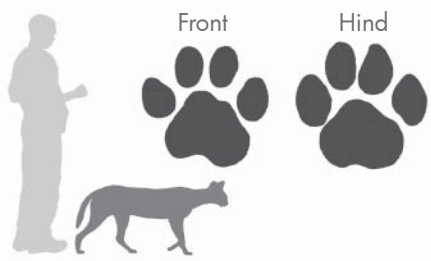
Active night and day

6 Other Wild Animals not Harmful to Livestock



SERVAL

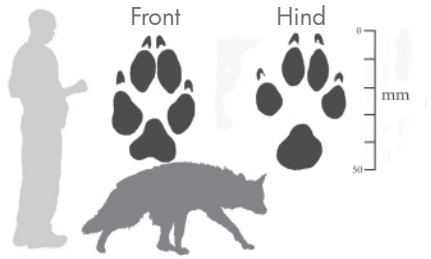
TADI



Though they could be capable of taking poultry or injured small stock, servals usually hunt small mammals, reptiles and game birds.

AARDWOLF

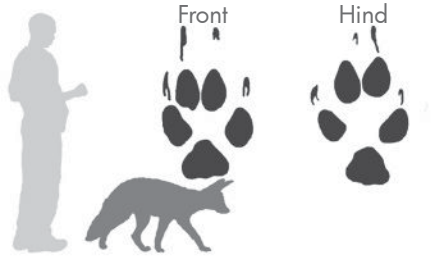
THUKWI



The aardwolf is sometimes mistaken for a predator, but it is an insect eater. Its teeth are adapted for feeding mostly on termites and so it is not capable of taking livestock.

BAT-EARED FOX

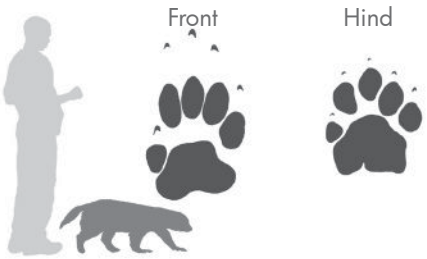
MOTLHOSE



Bat-eared foxes are too small to take livestock. Though sometimes seen near a carcass, they are usually feeding on insects rather than the meat itself.

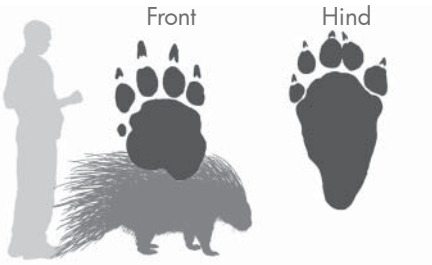
HONEY BADGER MATSHWANE

The ratel, or honey badger, feeds on small mammals, reptiles and insects. It also raids beehives for honey.



PORCUPINE NOKO

Porcupines are vegetarian, feeding on roots, bulbs and fruit. They will sometimes gnaw on the bones of a carcass and take them to their burrows.



VULTURE LENONG

Vultures are not adapted for hunting and scavenge only on the carcasses of dead animals.

Livestock Treatment Dips
Avoiding treatments harmful to birds

Harmful to Birds

Agricura Blowfly Dressing
Bacdip Aerosol
Bacdip
Bostan
Bovitik-Plus NF
Bromfos
Cooperson
Daz-Dust
Dazzel NF
Delnav DFF
Diasdip 30
Diazinon DFF
Disnis NF Dip
Econodip 30
Karabadip Spray
Lujet
Luprinex
Milborrow Wound Aerosol
Milborrow Wound Oil NF
Ovipar Sheepgoat Dip
Porect
61X-A-Side
Steladone 30 Cattle, Sheep & Goat Dip
Sumifleece Sheep and Goat Dip
Sumiplus
Supamix DFF
Supona 30 Cattle Dip
Supona Angro Goat Dip
Tick and Maggot Oil
Tick Dressing 'S'
Tiguvon Spotton
Topclip Orange Shield
Topclip Silver Shield
Zeropar
Zipdip

Non-harmful to Birds

Agricura Tick Grease
Bayopet Tick Rinse
Bayticol
Blitzdip
Curatik Cattle Dip
Deca-Spot
Decatix Cattle Sheep & Goat Dip
Hosadip
Librekto
Paracide
Stopatik
Sumitik Cattle Dip
Super Golden Fleece
Triatix LS
Triatix Cattle Spray
Triatix Wettable Powder for Cattle Spray

These lists were supplied courtesy of Birdlife Botswana.

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Gumare, Box 101..... 687 4026
Hukuntsi, P.Bag 84 .....651 0261
Kang, Box 129 .....651 7039
Kanye, P.Bag 30 .....544 1250
Kasane, Box 17 .....625 0486
Letlhakane, P.Bag 33 ..... 297 6866
Mabutsane, Box 22 ..... 588 9244
Machaneng, Box 8 ..... 494 0241
Mathathane, ... 264 5128
Maun, Box 11 ..... 686 0368
Mmadinare, Box 199 ..... 261 7407
Mochudi, P.Bag 9 ..... 577 7155
Molepolole, Box 93 ..... 592 0349
Otse, Box 81....., ... 533 7181
Pandamatenga, Box 17 ..... 623 2066
Rakops 297 5124
Serowe, Box 679 ..... 463 0443
Shakawe, Box 6 .....687 5042
Tsabong, Box 4 ..... 654 0280

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Ghanzi, Box 14 ..... 659 6620
Gumare, Box 66 ..... 687 4036
Jwaneng, Box 17 ..... 588 0466
Lerala, ... 495 4160
Letlhakane, P.Bag 11 ..... 297 8299
Lobatse, P.Bag 45 ..... 533 0671
Mahalapye, Box 50 ..... 471 0286
Mathathane, ... 264 5126
Maun, Box 6 ..... 686 0236
Maunatlala, ... 495 8331
Morwamosu, ... 588 9176
Moshupa, ... 544 9550
Motokwe, Box 223 ..... 588 9070
Motopi, Box 52 ..... 686 9010
Rakops, Box 40 ..... 297 5121
Sehitwa, ... 687 2058
Selibe-Phikwe, P.Bag 8 ..... 261 0890
Serowe, Box 679 ..... 463 0443
Serule, ... 242 2265
Shakawe, Box 6 ..... 687 5026
Sowa Town, ... 621 3441
Tonota, Box 886, ... 248 4599
Tsabong, ... 659 7121

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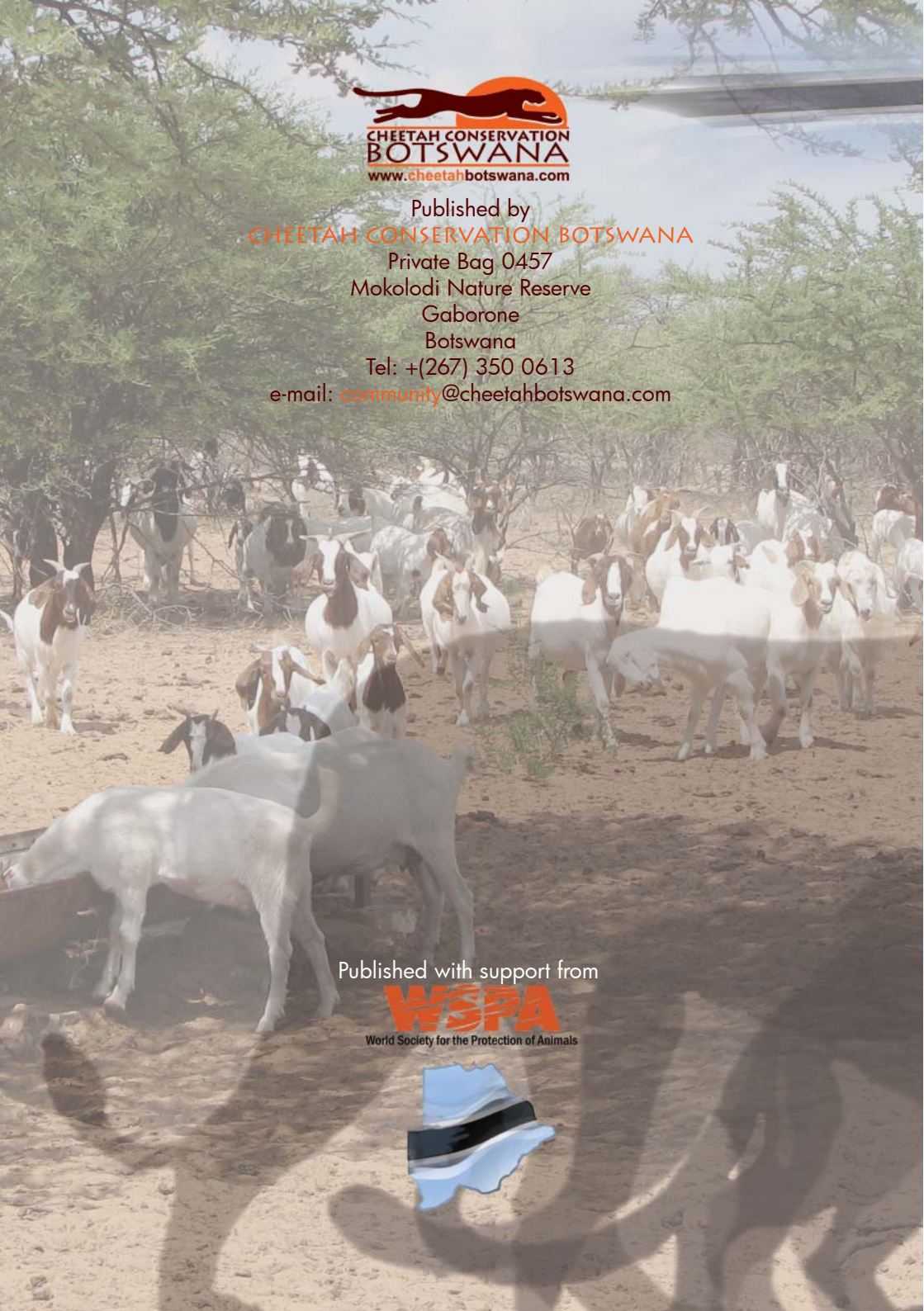
Bonnie & Mandy Schumann
Birdlife Botswana
Sue Karen
Marty Varon

A HAPPY & PRODUCTIVE FARM

When livestock and game are well managed, all will feel the benefits.



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